

Seven Steps to Producing a Printed Report

This article is drawn from the instructions for customizing the CAHPS reporting products that were provided in the CAHPS® 2.0 Survey and Reporting Kit.

What You Will Find in this Article

- Getting Started: What You Need to Know
- Steps for Creating a Printed Report
 - Step 1. Outline and Mock-Up of Page Layout
 - Step 2. Preliminary Design Decision – Colors and Photos
 - Step 3. Full-sized Mock-up
 - Step 4. Field Testing and Review
 - Step 5. Review and Buy-off from Stakeholders (if applicable)
 - Step 6. Incorporating Data into the Report
 - Step 7. Proofing, Proofing, and More Proofing

This article reviews the seven steps involved in designing and producing a printed report to convey the results of a CAHPS survey. Since this work could be done by either the survey sponsor or a vendor hired by the sponsor for this purpose, the information and guidance offered here is intended for all potential users. When appropriate, the instructions refer to the use of staff with specific skills (such as graphic design), but that staff could be in-house or under contract for the project only.

Getting Started: What You Need to Know

Before you can develop a report of CAHPS health plan survey results, you need to understand the principles underlying CAHPS reporting materials. Please refer to the document *Reporting Results of the CAHPS® Health Plan Survey* for a discussion of those principles. In addition, you may want to consult the Reporting Resources section of the CAHPS Web site, at https://www.cahps.ahrq.gov/content/resources/report/RES_REPORT_Intro.asp?p=103&s=32, as well as TalkingQuality.gov, a Web site offering comprehensive information on the public reporting of health care information.

Steps for Creating a Print Report

Step 1. Outline and Mock-up of the Page Layout

- Outline the contents of each report you plan to create. Begin with an annotated table of contents and mock-ups of data displays you are considering. For guidance, please refer to the *Annotated Table of Contents* in Exhibit B at the end of this step.
- To help guide your planning, create a mock-up of the page layout for the booklet. You can sketch a series of small boxes that represent pages, then indicate the general content of each page. The sketches can help you visualize the topics that will be shown on facing pages, which can affect the flow of the report. (See the example in Exhibit A below.)
- When thinking about content placement, make an effort to keep information on technical quality in a separate section, as readers tend to be easily confused if they cannot figure out the source of data.
- Draft the text after members of the project team have agreed on the annotated outline and the thumbnail sketches for your report.

Exhibit A. An example of a mock-up of the page layout

FRONT COVER			
inside front cover			
• SPONSOR INFO • ACKNOWLEDGEMENTS 2	TABLE OF CONTENTS 1	BAR GRAPHS Rating of health care 10	BAR GRAPHS Courtesy, respect, & helpfulness of office staff 11
• INTRODUCTION TO HEALTH PLAN QUALITY CONCEPT • PURPOSE OF REPORT 2	SURVEY INFO • WHO • HOW MANY • WHO CONDUCTED 3	BAR GRAPHS Health plan customer service 12	BAR GRAPHS Rating of health plan 13
A QUICK LOOK AT STAR 4	HOW PLANS COMPARE CHART 5	Descriptions of TYPES OF PLANS (2 pg) • HMO, PPO, POS 14	15
HOW TO READ & USE THE BAR GRAPHS • orient to graph 6	BAR GRAPHS Getting Care that is needed 7	MORE OPEN ENROLLMENT INFO • Where to go • Plans 16	inside back cover BLANK NOTES PAGE _____ _____ _____ 17
BAR GRAPHS Getting care w/o long waits 8	BAR GRAPHS How well doctors communicate 9	BACK COVER	

Exhibit B. Annotated table of contents

About the Information in This Booklet

- **Why health plan quality matters.** One-half page of text with key messages to motivate readers to use quality information for health plan choice. First introduction of plan names and plan types. Navigational cue to detailed types of plan information at back of booklet.
- **How this booklet can help you.** One-half page text overview of how quality information in this book can be used with cost and coverage information for health plan choice.
- **About the Survey.** Three-fourths page text with graphics. Contains information about how the survey was done. Key messages include that the survey was done by an independent third party, how many people were surveyed, and types of questions asked by the survey. Page includes navigational cues directing readers to the different presentations (stars/bars) of survey data within the booklet.

A Quick Look at How Plans Compare

- **Summary chart that compares plans on all survey topics.** Two-page spread showing survey results for all seven topics for all six plans displayed as stars. Chart is centered across the two pages, with one column of explanatory text to the far left of the chart and one column of explanatory text to the far right of the chart. Navigational arrow directing readers to the bar graphs in bottom right corner.

More Information on Each Survey Topic

- **What graphs tell you.** One page, extensive graphics. Works as a legend to the three-category bar graphs on the following seven pages. Bar graphs throughout the report will have dark blue in left bar for worse survey results, green in right bar for better survey results, and white in center bar. Describes how to read and interpret the percentages, how to know which plans are doing better and which plans are doing worse, with a “tip” for readers to look for large differences and ignore small differences.
- **Getting care that is needed.** One page. Text in left column describes the questions included in this composite. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has “big problem,” “small problem,” and “no problem” response options.
- **Getting care without long waits.** One page. Text in left column describes the questions included in this composite. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has “big problem,” “small problem,” and “no problem” response options.

Exhibit B. Annotated Table of Contents (continued)

- **How well doctors communicate.** One page. Text in left column describes the questions included in this composite. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has “always,” “usually,” “sometimes,” and “never” response options.
- **How people rated their health plan.** One page. Text in left column states that this indicator represents results for **one** survey question. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has a 0 to 10 scale response option.
- **Courtesy respect and helpfulness of office staff.** (One page. Text in left column describes the questions included in this composite. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has “always,” “usually,” “sometimes,” and “never” response options.
- **Health plan customer service.** One page. Text in left column describes the questions included in this composite. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has “always,” “usually,” “sometimes,” and “never” response options.
- **How people rated their plan.** One page. Text in left column states that this indicator represents results for **one** survey question. Bar graphs for each plan are in the right column and legend is at top right of page. This graph has a 0 to 10 scale response option.
- **Which type of health plan will work best for you.** Two facing pages with three columns of text plus a call-out box at far right of right-hand page. Defines a provider network and includes Internet addresses for plan provider directories. Describes the differentiating features of the plans offered by Acme Corporation (HMO, PPO, FFS) with call-out box containing a list of the information enrollees should get from the plan and a navigational arrow to page 16 for plan contact information. Text to be customized with specific information about our benefit plan designs.
- **Where to go for open enrollment materials.** One page, extensive graphics. Acme Corporation contact information and instructions for open enrollment at top of page and plan contact information at bottom of page. Need plan name, logo, address, telephone number, and Internet address for all six plans.

Step 2. Preliminary Design Decisions—Colors and Photos

- **Using color.** Choose colors that allow for sufficient contrast in text and graphic elements, which can be used to effectively highlight main points and important cues. Another consideration is to select colors that look appealing in a full range of shades, from light to dark.

The CAHPS templates use two colors: green (PMS 3405) and purple (PMS 2735). “PMS” colors are standardized colors from the Pantone Matching System that are used in printing. The sample guides included with this Kit reflect this color scheme.

If you want to use a different color combination, look at other reports or publications to see how they use color and ask your vendor to show you the PMS sample books (*Pantone Color Specifier* and *Pantone Two-Color Selector* are highly recommended). To be effective, the colors that you substitute should not be too light (yellow would not be suitable for a text color, for example), or too dark (dark brown would not be attractive, for example). Clear shades of blue or green work well, and some shades of purple also look good. When you select a color, look very carefully at the PMS samples that show what the color looks like in its lightest shades, because much of the print guide template uses a lighter shade (called a “screen”) as background. Many colors that are appealing in full strength, such as browns, reds, and peach tones, can look very different in lighter shades.

You may prefer to produce a black-and-white booklet. However, if price is the driving factor in your decision about whether to use color, be sure to check on the extra cost of one or two colors before you settle on black and white. The incremental cost of adding one color may be relatively minor when you are printing large quantities, and color does improve the appeal of the guide.

- **Using Photos.** In testing, the CAHPS researchers found that consumers respond very positively to photographs. We encourage you to consider putting photos in your report, since using even just one or two lends warmth and interest.

Step 3. Full-sized Mock-up

At this point, you should have a first draft of the text for the report.

- Create a full-sized mock-up of the report, including placeholders for data in the star charts and bar charts, and insert the draft text.
- Do not use real plan names at this stage. Instead, label health plans as Plan A, Plan B, etc. Be sure to include a footer stating “DRAFT—data not valid, [Date]” so that plan labels are not associated with the fake data. Do not use real plan names until Step 6, Incorporating Data into the Report.

Step 4. Field Testing and Review

To obtain some feedback on the report prototype from consumers, conduct a formal field test or ask for informal comments.¹ In either case:

- Use the results of this review to improve the printed guide before you insert the actual survey results.
- If you want to get reactions to the way you choose to show the plan names, circulate separate pages with plan names and blank spaces in place of star charts and bar graphs. You can use this approach to get plan approval on abbreviated plan names if space is limited and plan names are long. You can also use it to get reactions to the order in which plans are listed.

Step 5. Review and Buy-off from Stakeholders (if applicable)

- Some survey project agreements require a review and approval of the report by stakeholders, such as health plans. It is important to distinguish between the design and the content of the report and to obtain a sign-off for each of these separately.
- You can also request your advisory group to review and provide feedback on the report prototype.
- Again, be sure to never combine real plan names and fake data in the draft review stage.
- Revise the report prototype to incorporate the formal and informal feedback. Be sure to review the revisions carefully to make sure that all of the changes are appropriate and consistent. If time allows, circulate this revised version among stakeholders to get a final “sign-off” on the design and content.

¹ For practical and low-budget ideas on how to get this type of feedback on draft reports, see McGee, J. (1995). *Field testing to improve information materials for consumers: A do-it-yourself guide*. Vancouver, WA. For a copy of the guide, contact McGee & Evers Consulting, Inc., at (360) 574-4744.

Step 6. Incorporating Data into the Report

You should now have a revised report prototype. The placeholders for survey data in your report prototype should match the output from the CAHPS analysis program described in *Instructions for Analyzing CAHPS® Data: Using the CAHPS Analysis Program Version 3.6*.

If you haven't hired a vendor to create the reports, designate a group of two or three people to manage the merging of the output into the print guide. This team should include someone familiar with the questionnaire, analysis, and reporting format decisions and a graphic designer.

The next steps are as follows:

- **Transfer the stars from your SAS output into the comparison star charts.**
A simple method of doing this is to read the SAS output into a Word file using the format shown below. The Word file can then be imported with the stars into the report template. Figure 1 is an example of how the Word file might look for one set of comparison star charts.

The SAS output also alerts you if the number of usable responses for any plan drops below 100. If this occurs, we recommend that you insert into the template a notice to the reader. You could use the phrase “Note A,” as shown in Figure 1, accompanied by the following footnote: “Note A: There are fewer than 100 responses for Plan 2.”

Figure 1. Example Word file format for comparison star chart

Plan	Getting care that is needed	Getting care without long waits	How well doctors communicate	How people rated their health care	Courtesy, respect, and helpfulness of office staff	Health plan customer service	How people rated their health plan
Plan 1	★★★★	★★	★★	★★★★	★★★★	★★	★★
Plan 2	★★	★★	★★★★	Note A	★★	★★	★★★★
Plan 3	★★	★	★★	★★★★	★★	★	★★

- **Integrate the output for the bar graphs.** As with the comparison star charts, you can provide the graphic designer with a Word file with the output for each composite and single item as shown in Figure 2.

Figure 2. Example Word file format for bar graphs

Composite: “People’s experiences in getting care they need”

	A big problem	A small problem	Not a problem
Plan 1	20%	30%	50%
Plan 2	20%	30%	50%
Plan 3	20%	30%	50%

Your graphic designer can then create these graphs in an appropriate software package (e.g., Illustrator, Microsoft Graph). The last step is to import these bar graphs into your report. Be sure to check the accuracy of the graph before importing it into your prototype.

- Insert the real plan names into the placeholders.
- Keep the “DRAFT—Data have not been verified—[date]” footer on every page of the report until final proofing is complete.

Step 7. Proofing, Proofing, and More Proofing

To ensure accuracy in your report, proofread carefully throughout all the stages of production.

- Each time changes are made, proofread the report to make sure that text and graphics are redistributed appropriately, text flow is not interrupted, and changes are carried through the entire document.

- Proofreading of data is ideally carried out by two people simultaneously—one person reads the numbers off of the data printout and the other checks the numbers in the report.
- When proofreading text, it is helpful to have at least one person who has not been closely involved in the production process read through the document.
- Graphic designers should check on various technical aspects, such as trapping (which must be redone after edits are made to the template), bleeds, screens, binding margins, fonts, and color separations (if you are using color in your report).
- Graphic artists are not copyeditors, so you will need to pay close attention to the text and content.
- When all edits are complete, both you and your graphic designers should check to see if the overall flow of content and format has been preserved. If you have edited one part of the report, do you need to edit other parts to maintain internal consistency?
- The last step is to remove the “DRAFT” footers and any headers that are in the files and prepare the report for printing.